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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,594	07/15/2003	Motoshige Hibino	P66091US1	6867

7590 05/04/2004

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EXAMINER

PATTERSON, MARC A

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 05/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/618,594	Applicant(s) HIBINO ET AL.	
	Examiner Marc A Patterson	Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1 – 5 and 7 – 10, drawn to a hose, classified in class 428, subclass 35.7.
 - II. Claims 6 and 11 – 20, drawn to a process for manufacturing a hose, classified in class 264, subclass 177.2.
2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by a materially different method, such as one in which all of the layers are pre – formed and then laminated.
3. Because these inventions are distinct for the reasons described above, and have acquired a separate status in the art because of their recognized different classification and subject matter, and because the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mr. Irwin Aisenberg on April 28, 2004 a provisional election was made with traverse to prosecute the invention of I, claims 1 – 5 and 7 – 10. Affirmation of this election must be made by applicant in replying to this Office action.

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Claims 6 and 11 – 20 are withdrawn from further consideration by the examiner, 37

CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

5. Claim 1 is objected to because of the following informalities: The term ‘corrugated’ has been typed ‘corrugate6’. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 – 3, 7 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kanao (U.S. Patent No. 4,862,924).

With regard to Claims 1 and 7, Kanao discloses a hose (pipe; column 3, line 3) having a wall (outer wall; column 2, line 41) corrugated along its length (the outer wall comprises a series of U – shaped portions, and therefore comprises a series of ridges and grooves and is therefore corrugated; column 2, lines 49 – 51; Figure 1), comprising an inner resin layer (inner pipe wall; column 5, lines 21 – 22) and a layer having a metal film held between two resin films (a belt member which comprises a metal plate lined on its inner and outer surfaces with a resin material; column 6, lines 50 – 53), which is therefore a laminated layer, and surrounding the inner layer (the belt member is integrally fused with the inner layer; column 2, lines 43 – 45) and an outer

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resin layer surrounding the laminated layer (a coating pipe wall on the periphery of the tube; column 5, line 24; Figure 6).

With regard to Claim 2, the laminated layer is a spirally wound layer (helically wound layer; column 2, line 43) and is therefore applied as a tape.

With regard to Claim 3, the inner layer and laminated layer are integrally fused (column 2, lines 43 – 45); the laminated layer therefore acts as its own adhesive.

With regard to Claim 10, the inner resin layer has a thickness of 300 μm – 3000 μm (column 3, lines 39 – 40)

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanao (U.S. Patent No. 4,862,924).

Kanao discloses a hose having a laminated tape as discussed above. Kanao fails to disclose a laminated tape having a thickness of less than 200 μm and a thickness less than 5 mm and a thickness of the outer layer of from 50 μm to 5 mm. However, Kanao discloses a laminated tape having a thickness of 300 μm – 3000 μm (column 3, lines 39 – 40) and teaches inner and outer layers having thin layer thicknesses (column 5, lines 66 – 68) and teaches that the layers are selected for resistance the deterioration owing to changes in the weather (column 3, lines 25

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– 28). Therefore, one of ordinary skill in the art would have recognized the utility of varying the thicknesses of the layers to obtain a desired weather resistance. Therefore, the weather resistance would be readily determined through routine optimization of the thicknesses by one having ordinary skill in the art depending on the desired end use of the product.

It therefore would be obvious for one of ordinary skill in the art to vary the thickness in order to obtain a desired weather resistance, since the weather resistance would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Kanao.

Therefore, the thicknesses of the layers would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary the thicknesses, since the thicknesses would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Kanao.

10. Claims 5 and 8 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanao (U.S. Patent No. 4,862,924) in view of Schave et al (U.S. Patent No. 6,049,658).

Kanao discloses a hose having a laminated tape as discussed above. With regard to Claims 5 and 8 – 9, Kanao fails to disclose a laminated tape comprising aluminum.

Schave et al teach the use of aluminum strips in the making of corrugated hose, for the purpose of making a hose having increased crush resistance (column 6, lines 15 – 26). Therefore, one of ordinary skill in the art would have recognized the advantage of providing the aluminum

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of Schave et al in Kanao which is a corrugated hose, depending on the desired crush resistance of the end product as taught by Schave et al.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for aluminum of Schave et al in Kanao in order to make a hose having increased crush resistance as taught by Schave et al.

Kanao fails to disclose a laminated tape having a thickness of $7\text{ }\mu\text{m}$ – $200\text{ }\mu\text{m}$. However, Kanao discloses a laminated tape having a thickness of $300\text{ }\mu\text{m}$ – $3000\text{ }\mu\text{m}$ (column 3, lines 39 – 40) and teaches inner and outer layers having thin layer thicknesses (column 5, lines 66 – 68) and teaches that the layers are selected for resistance the deterioration owing to changes in the weather (column 3, lines 25 – 28). Therefore, one of ordinary skill in the art would have recognized the utility of varying the thicknesses of the layers to obtain a desired weather resistance. Therefore, the weather resistance would be readily determined through routine optimization of the thicknesses by one having ordinary skill in the art depending on the desired end use of the product.

It therefore would be obvious for one of ordinary skill in the art to vary the thickness in order to obtain a desired weather resistance, since the weather resistance would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Kanao.

Therefore, the thicknesses of the layers would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary the thicknesses,

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since the thicknesses would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Kanao.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Patterson, whose telephone number is (703) 305-3537. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (703) 308-4251. FAX communications should be sent to (703) 872-9310. FAXs received after 4 P.M. will not be processed until the following business day.

Marc A. Patterson, PhD.

Marc Patterson
Art Unit 1772

Harold Pyon
HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

4/30/04